

L FW



PTO/SB/21 (08-03)

Approved for use through 08/30/2003. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission	28	Application Number 10/789,308
		Filing Date 02/26/04
		First Named Inventor Thomas M. Jessell
		Art Unit 1636
		Examiner Name to be assigned
		Attorney Docket Number 5199-152

### ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">Return receipt postcard</div>
Remarks		

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Todd Holmbo, Reg. No. 42,665		
Signature			
Date	11/24/04		

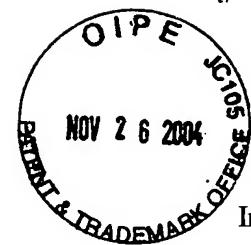
### CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Ping Xiao		
Signature			
	Date	11/24/04	

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Thomas Jessel, et al. Docket No.: 5199-152  
Serial No.: 10/789,308 Examiner: to be assigned  
Filed: February 26, 2004 Group Art Unit: 1636  
Title: **SYSTEMS AND METHODS FOR SCREENING FOR MODULATORS OF NEURAL DIFFERENTIATION**

November 24, 2004

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §1.97(b)**

Sir:

In accordance with the duty of disclosure under 37 CFR §1.56, applicant hereby notifies the U. S. Patent and Trademark Office of the following documents, which are listed on the attached PTO/SB/08B form. The examiner may deem these documents to be relevant to patentability of the claims of the above-identified application. Copies of the documents are enclosed for the examiner's convenience.

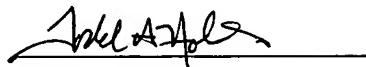
The submission of the listed documents is not intended as an admission that any of the documents constitute prior art against the claims of the present application. Applicants do not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Applicants respectfully request that the listed documents be considered by the examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08B be returned in accordance with MPEP §609.

It is understood that no fee is necessary for submission of this Information Disclosure Statement, because it is being filed before the later of three months from the filing date or the mailing of the first Office Action on the merits.

The Commissioner is hereby authorized to charge payment of any fees associated with this application or credit any overpayment to Deposit Account No. 02-4270.

Respectfully submitted,



Todd Holmbo  
Reg. No. 42,665  
Attorney for Applicants  
BROWN RAYSMAN MILLSTEIN  
FELDER & STEINER LLP  
163 Madison Avenue  
P.O. Box 1989  
Morristown, New Jersey 07962-1989  
(973) 775-8930

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 25 Attorney Docket Number 5199-152

**Complete if Known**

Application Number	10/789,308
Filing Date	02/26/04
First Named Inventor	Thomas M. Jessell
Art Unit	1636
Examiner Name	to be assigned

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Abbondanzo et al., Derivation of embryonic stem cell lines.	
		Methods Enzymol., 225: 803-823, 1993	
		Akhurst and Derynck, TGF-beta signaling in cancer-a double-edged sword.	
		Trends Cell Biol., 11(11): S44-51, 2001	
		Alvarez-Buylla et al., A unified hypothesis on the lineage of neural stem cells.	
		Nat. Rev. Neurosci., 2: 287-293, 2001	
		Arber et al., Requirement for the homeobox gene Hb9 in the consolidation of motor neuron identity.	
		Neuron, 23: 659-764, 1999	
		Bain et al., Embryonic stem cells express neuronal properties in vitro.	
		Dev. Biol., 168: 342-357, 1995	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	2	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Bak et al., The Hedgehog signaling pathway – implications for drug targets in cancer and neurodegenerative disorders.			
		Pharmacogenomics, 4(4): 411-429, 2003	(N/A)		
		Beers and Berkow, eds., The Merck Manual of Diagnosis and Therapy, 17th ed. Whitehouse Station, NJ: Merck Research Laboratories, 1999, chap. 183			
		Belting et al., Multiple phases of expression and regulation of mouse Hoxc8 during early embryogenesis.			
		J. Exp. Zool., 282: 196-222, 1998			
		Bieri et al., Abnormal nerve conduction studies in mice expressing a mutant form of the POU transcription factor, SCIP.			
		J. Neurosci. Res., 50:821-828, 1997			
		Bloch-Gallego et al., Survival in vitro of motoneurons identified or purified by novel antibody-based methods is selectively enhanced by muscle-derived factors.			
		Development, 111: 221-232, 1991			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	3	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Blumberg et al., An essential role for retinoid signaling in anteroposterior neural patterning.	
		Development, 124: 373-379, 1997	
		Botchkarev, V.A., Bone morphogenetic proteins and their antagonists in skin and hair follicle biology.	
		Journal of Investigative Dermatology, 120: 36-47, 2003	
		Brazelton et al., From marrow to brain: expression of neuronal phenotypes in adult mice.	
		Science, 290: 1775-1779, 2000	
		Briscoe and Ericson, Specification of neuronal fates in the ventral neural tube.	
		Curr. Opin. Neurobiol., 11: 43-49, 2001	
		Briscoe et al., A homeodomain protein code specifies progenitor cell identity and neuronal fate in the ventral neural tube.	
		Cell, 101: 435-445, 2000	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	4	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Byrd et al., Hedgehog is required for murine yolk sac angiogenesis.			
		Development, 129: 361-372, 2002			
		Cadigan and Nusse, Wnt signaling: a common theme in animal development.			
		Genes Dev., 11(24): 3286-3305, 1997			
		Camu et al., Purification of embryonic rat motoneurons by panning on a monoclonal antibody to the low-affinity NGF receptor.			
		J. Neurosci. Methods, 44: 59-70, 1992			
		Chambon, P., The molecular and genetic dissection of the retinoid signaling pathway.			
		Recent Prog. Horm. Res., 50: 317-332, 1995			
		Chambon, P., The retinoid signaling pathway: molecular and genetic analysis.			
		Semin. Cell Biol., 5(2): 115-125, 1994			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	5	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Chiang et al., Cyclopia and defective axial patterning in mice lacking Sonic hedgehog gene function.	
		Nature, 383: 407-413, 1996	
		Chiba et al., Distinct retinoid X receptor – retinoic acid receptor heterodimers are differentially involved in the control of expression of	
		of retinoid target genes in F9 embryonal carcinoma cells.	
		Mol. Cell Biol., 17: 3013-3020, 1997	
		Choi et al., A generic intron increases gene expression in transgenic mice.	
		Mol. Cell Biol., 11: 3070-3074, 1991	
		Cross and Claesson-Welsh, FGF and VEGF function in angiogenesis: signalling pathways, biological responses and therapeutic inhibition.	
		Trends Pharmacol. Sci., 22(4): 201-207, 2001	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	6	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Danielsen and Maihle, The EGF/ErbB receptor family and apoptosis.			
		Growth Factors, 20(1): 1-15, 2002			
		Davis and Joyner, Expression patterns of the homeobox-containing genes En-1 and En-2 and the proto-oncogene int-1 diverge during mouse development.			
		Genes Dev., 2: 1736-1744, 1988			
		Durston et al., Retinoids and related signals in early development of the vertebrate central nervous system.			
		Curr. Top. Dev. Biol., 40: 111-175, 1998	(N/A)		
		Dyer et al., Indian hedgehog activities hematopoiesis and vasculogenesis and can respecify prospective neurectodermal cell fate in the mouse embryo.			
		Development, 128: 1717-1730, 2001			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				Application Number	10/789,308
				Filing Date	02/26/04
				First Named Inventor	Thomas M. Jessell
				Art Unit	1636
				Examiner Name	to be assigned
Sheet	7	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
		Ericson et al., Pax6 controls progenitor cell identity and neuronal fate in response to graded SHh signaling.		
		Cell, 90: 169-180, 1997		
		Ericson et al., Two critical periods of Sonic Hedgehog signaling required for the specification of motor neuron identity.		
		Cell, 87: 661-673, 1996		
		Falls, D.L., Neuregulins: functions, forms, and signaling strategies.		
		Exp. Cell Res., 284(1) 14-30, 2003		
		Frank-Kamenetsky et al., Small-molecule modulators of Hedgehog signaling: Identification and characterization of Smoothened agonists and antagonists.		
		J. Biol. 1(2): 10, 2002		
		Gage, F. H., Mammalian neural stem cells.		
		Science, 287: 1433-1438, 2000		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				Application Number	10/789,308
				Filing Date	02/26/04
				First Named Inventor	Thomas M. Jessell
				Art Unit	1636
				Examiner Name	to be assigned
Sheet	8	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
		Giles et al., Caught up in a Wnt storm: Wnt signaling in cancer.			
		Biochim. Biophys. Acta., 1653(1): 1-24, 2003			
		Goodwin and D'Amore, Wnt signaling in the vasculature.			
		Angiogenesis, 5(1-2): 1-9, 2002 <i>(N/A)</i>			
		Gratsch et al., Noggin and chordin have distinct activities in promoting lineage commitment of mouse embryonic stem (ES) cells.			
		Dev. Biol., 245: 83-94, 2002 <i>(N/A)</i>			
		Hatsell et al., Beta-catenin and Tcf3 in mammary development and cancer.			
		J. Mammary Gland Biol. Neoplasia., 8: 145-158, 2003			
		Hollyday et al., An autoradiographic study of the formation of the lateral motor column in the chick embryo.			
		Brain Res., 132: 197-208, 1977			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/789,308
		Filing Date	02/26/04
		First Named Inventor	Thomas M. Jessell
		Art Unit	1636
		Examiner Name	to be assigned
Sheet	9	of	25
		Attorney Docket Number	
		5199-152	

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Hsieh et al., Biochemical characterization of Wnt-frizzled interactions using a soluble, biologically active vertebrate Wnt protein.	
		Proc. Natl. Acad. Sci. USA, 96: 3546-3551, 1999	
		Imondi and Thomas, Neuroscience: the ups and downs of Wnt signaling.	
		Science, 302: 1903-1904, 2003	
		Lee et al., The specification of dorsal cell fates in the vertebrate central nervous system.	
		Annu. Rev. Neurosci., 22: 261-294, 1999	
		Lemaire and Kessel, Gastrulation and homeobox genes in chick embryos.	
		Mech. Dev., 67: 3-16, 1997	
		Jessell et al., Neuronal specification in the spinal cord: inductive signals and transcriptional codes.	
		Nat. Rev. Genet., 1: 20-29, 2000	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	10	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Kalderon, D., Hedgehog signaling: Costal-2 bridges the transduction gap.			
		Curr. Biol., 14(2): R67-69, 2004			
		Kania et al., Coordinate roles for LIM homeobox genes in directing the dorsoventral trajectory of motor axons in the vertebrate limb.			
		Cell, 102: 161-173, 2000			
		Katoh, M., Genome-wide search of human genes implicated in Wnt signaling pathway using bioinformatics.			
		Genome Informatics, 13: 367-368, 2002			(N/A)
		Kawasaki et al., Induction of midbrain dopaminergic neurons from ES cells by stromal cell-derived inducing activity.			
		Neuron, 28: 31-40, 2000			
		Kyba et al., HoxB4 confers definitive lymphoid-myeloid engraftment potential on embryonic stem cell and yolk sac hematopoietic progenitors.			
		Cell, 109: 29-37, 2002			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	11	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Lauta, V. M., A review of the cytokine network in multiple myeloma: diagnostic, prognostic, and therapeutic implications.			
		Cancer, 97(10): 2440-2452, 2003			
		Lee et al., Transcriptional networks regulating neuronal identity in the developing spinal cord.			
		Nat. Neurosci., 4 Suppl. : 1183-1191, 2001			
		Lee et al., Efficient generation of midbrain and hindbrain neurons from mouse embryonic stem cells.			
		Nat. Biotechnol., 18: 675-679, 2000			
		Liu et al., Assigning the positional identity of spinal motor neurons. Rostrocaudal patterning of Hox-c expression by FGFs, Gdf11, and retinoids.			
		Neuron, 32: 997-1012, 2001			
		Lu et al., Common developmental requirement for Olig function indicates a motor neuron/oligodendrocyte connection.			
		Cell, 109: 75-86, 2002			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				Application Number	10/789,308
				Filing Date	02/26/04
				First Named Inventor	Thomas M. Jessell
				Art Unit	1636
				Examiner Name	to be assigned
Sheet	12	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Malbon et al., Wnt signaling and heterotrimeric G-proteins: strange bedfellows or a classic romance?			
		Biochem. Biophys. Res. Commun., 287(3): 589-593, 2001			
		Mallamaci et al., OTX2 homeoprotein in the developing central nervous system and migratory cells of the olfactory area.			
		Mech. Dev., 58: 165-178, 1996			
		Massague et al., TGF <sup>beta</sup> signaling in growth control, cancer, and heritable disorders.			
		Cell, 103: 295-309, 2000			
		McMahon, A. P., More surprises in the hedgehog signaling pathway.			
		Cell, 100: 185-188, 2000			
		Mezey et al., Turning blood into brain: cells bearing neuronal antigens generated in vivo from bone marrow.			
		Science, 290: 1779-1782, 2000			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	13	of	25	<b>Attorney Docket Number</b>	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
		Miyazono et al., Divergence and convergence of TGF-beta/BMP signaling.		
		J. Cell Physiol., 187(3): 265-276, 2001		
		Miyazono, K., Positive and negative regulation of TGF-beta signaling.		
		J. Cell Sci., 113(7): 1101-1109, 2000		
		Mizuguchi et al., Combinatorial roles of olig2 and neurogenin2 in the coordinated induction of pan-neuronal and subtype-specific properties of motoneurons.		
		Neuron, 31: 757-771, 2001		
		Moon et al., The promise and perils of Wnt signaling through beta-catenin.		
		Science, 296(5573): 1644-1646, 2002		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	14	of	25	<b>Attorney Docket Number</b>	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
		Muhr et al., Convergent inductive signals specify midbrain, hindbrain, and spinal cord identity in gastrula stage chick embryos.			
		Neuron, 23: 689-702, 1999			
		Munoz-Sanjuan et al., Neural induction, the default model and embryonic stem cells.			
		Nat. Rev. Neurosci., 3: 271-280, 2002			
		Nordstrom et al., Progressive induction of caudal neural character by graded Wnt signaling.			
		Nat. Neurosci., 5(6): 525-532, 2002			
		Novitch et al., Coordinate regulation of motor neuron subtype identity and pan-neuronal properties by the bHLH repressor Olig2.			
		Neuron, 31: 773-789, 2001			
		Nusse, R., Wnts and hedgehogs: lipid-modified proteins and similarities in signaling mechanisms at the cell surface.			
		Development, 130(22): 5297-5305, 2003			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/789,308
		Filing Date	02/26/04
		First Named Inventor	Thomas M. Jessell
		Art Unit	1636
		Examiner Name	to be assigned
Sheet	15	of	25
		Attorney Docket Number	
		5199-152	

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
		O'Brien et al., Development and survival of thoracic motoneurons and hindlimb musculature following transplantation of the thoracic neural tube		
		to the lumbar region in the chick embryo: anatomical aspects.		
		J. Neurobiol., 21: 313-340, 1990		
		Ornitz and Itoh, Fibroblast growth factors.		
		Genome. Biol., 2(3): REVIEWS3005, 2001		
		Pandur et al., Increasingly complex: new players enter the Wnt signaling network.		
		Bioessays, 24(10): 881-884, 2002	C/N/A)	
		Pattyn et al., Control of hindbrain motor neuron differentiation by the homeobox gene Phox2b.		
		Development, 127: 1349-1358, 2000		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	16	of	25	<b>Attorney Docket Number</b>	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Pevny et al., Generation of purified neural precursors from embryonic stem cells by lineage selection.			
		Curr. Biol., 8: 971-974, 1998			
		Pfaff et al., Requirement for LIM homeobox gene Isl1 in motor neuron generation reveals a motor neuron-dependent step in interneuron differentiation.			
		Cell, 84: 309-320, 1996			
		Pierani et al., Control of interneuron fate in the developing spinal cord by the progenitor homeodomain protein Dbx1.			
		Neuron, 29(2): 367-384, 2001			
		Postigo, A.A., Opposing functions of ZEB proteins in the regulation of the TGF/BMP signaling pathway.			
		EMBO J., 22: 2443-2452, 2003			
		Povelones and Nusse, Wnt signaling sees spots.			
		Nat. Cell Biol., 4(11): E249-250, 2002			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	17	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Raju et al., SANE, a novel lem domain protein, regulates bone morphogenetic protein signaling through interaction with smad1.			
		J. Biol. Chem., 278(1): 428-437, 2003			
		Rathjen et al., Directed differentiation of pluripotent cells to neural lineages: homogenous formation and differentiation of a neurectoderm population.			
		Development, 129: 2649-2661, 2002			
		Renoncourt et al., Neurons derived in vitro from ES cells express homeoproteins characteristic of motoneurons and interneurons.			
		Mech. Dev., 79: 185-197, 1998			
		Reubinoff et al., Neural progenitors from human embryonic stem cells.			
		Nat. Biotechnol., 19: 1134-1140, 2001			
		Ring and Cho, Specificity in transforming growth factor- $\beta$ signaling pathways.	<i>beta</i>		
		Am. J. Hum. Genet., 64: 691-697, 1999			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				Application Number	10/789,308
				Filing Date	02/26/04
				First Named Inventor	Thomas M. Jessell
				Art Unit	1636
				Examiner Name	to be assigned
Sheet	18	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
		Roelink et al., Floor plate and motor neuron induction by different concentrations of the amino-terminal cleavage product of sonic hedgehog		
		autoproteolysis.		
		Cell, 81: 445-455, 1995		
		Sander et al., Ventral neural patterning by Nkx homeobox genes: Nkx6.1 controls somatic motor neuron and ventral interneuron fates.		
		Genes Dev., 14: 2134-2139, 2000		
		Schuldiner et al., Induced neuronal differentiation of human embryonic stem cells.		
		Brain Res., 913: 201-205, 2001		
		Sharma et al., Genetic and epigenetic mechanisms contribute to motor neuron pathfinding.		
		Nature, 406: 515-519, 2000		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	19	of	25	<b>Attorney Docket Number</b>	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
		Sharma et al., LIM homeodomain factors Lhx3 and Lhx4 assign subtype identities for motor neurons.			
		Cell, 95: 817-828, 1998			
		Shibamoto et al., Cytoskeletal reorganization by soluble Wnt-3a protein signaling.			
		Genes Cells, 3: 659-670, 1998			
		Streit et al., Initiation of neural induction by FGF signaling before gastrulation.			
		Nature, 406: 74-78, 2000			
		Tanabe et al., Specification of motor neuron identity by the MNR2 homeodomain protein.			
		Cell, 95: 67-80, 1998			
		Temple, S., The development of neural stem cells.			
		Nature, 414:112-117, 2001			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/789,308
		Filing Date	02/26/04
		First Named Inventor	Thomas M. Jessell
		Art Unit	1636
		Examiner Name	to be assigned
Sheet	20	of	25
		Attorney Docket Number	
		5199-152	

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Terada et al., Bone marrow cells adopt the phenotype of other cells by spontaneous cell fusion.	
		Nature, 416: 542-545, 2002	
		Thaler et al., Active suppression of interneuron programs within developing motor neurons revealed by analysis of homeodomain factor HB9.	
		Neuron, 23: 675-687, 1999	
		Tropepe et al., Direct neural fate specification from embryonic stem cells: a primitive mammalian neural stem cell stage acquired through a default mechanism.	
		Neuron, 30: 65-78, 2001	
		Tsuchida et al., Topographic organization of embryonic motor neurons defined by expression of LIM homeobox genes.	
		Cell, 79: 957-970, 1994	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				Application Number	10/789,308
				Filing Date	02/26/04
				First Named Inventor	Thomas M. Jessell
				Art Unit	1636
				Examiner Name	to be assigned
Sheet	21	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
		Uchida et al., Direct isolation of human central nervous system stem cells.		
		Proc. Natl. Acad. Sci. USA, 97: 14720-14725, 2000		
		Vallstedt et al., Different levels of repressor activity assign redundant and specific roles to NKx6 genes in motor neuron and interneuron specification.		
		Neuron, 31: 743-755, 2001		
		Van Es et al., You Wnt some, you lose some: oncogenes in the Wnt signaling pathway.		
		Curr. Opin. Genet. Dev., 13(1): 28-33, 2003		
		Van Gijn et al., The Wnt-frizzled cascade in cardiovascular disease.		
		Cardiovasc. Res., 1: 16-24, 2002		
		Veeman et al., A second canon: functions and mechanisms of beta-catenin-independent Wnt signaling.		
		Dev. Cell 5(3): 367-377, 2003		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	22	of	25	<b>Attorney Docket Number</b>	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Waxman and Bennett, Relative conduction velocities of small myelinated and nonmyelinated fibres in the central nervous system.			
		Nature New Biol., 238:217, 1972			
		Weston et al., Revisiting the role of retinoid signaling in skeletal development.			
		Birth Defects Res. Part C Embryo Today, 69(2): 156-173, 2003			
		Wetmore, C., Sonic hedgehog in normal and neoplastic proliferation: insight gained from human tumors and animal models.			
		Curr. Opin. Genet. Dev., 13(1): 34-42, 2003			
		Wilson et al., Neural induction: toward a unifying mechanism.			
		Nat. Neurosci., 4th Suppl.: 1161-1168, 2001			
		Wilson et al., An early requirement for FGF signaling in the acquisition of neural cell fate in the chick embryo.			
		Curr. Biol., 10: 421- 429, 2000			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	23	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Wilson et al., The status of Wnt signaling regulates neural and epidermal fates in the chick embryo.	
		Nature, 411: 325-330, 2001	
		Wodarz and Nusse, Mechanisms of Wnt signaling in development.	
		Annu. Rev. Cell Dev. Biol., 14: 59-88, 1998	
		Wood et al., Comparative expression of the mouse Sox1, Sox2 and Sox3 genes from pre-gastrulation to early somite stages.	
		Mech. Dev., 86: 197-201, 1999	
		Wrana, J., Regulation of Smad activity.	
		Cell, 100: 189-192, 2000	
		Xian et al., Peering into early neurogenesis with embryonic stem cells.	
		Trends Neurosci., 24: 685-686, 2001	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	10/789,308
				<b>Filing Date</b>	02/26/04
				<b>First Named Inventor</b>	Thomas M. Jessell
				<b>Art Unit</b>	1636
				<b>Examiner Name</b>	to be assigned
Sheet	24	of	25	Attorney Docket Number	5199-152

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Yamada et al., Control of cell pattern in the developing nervous system: polarizing activity of the floor plate and notochord.	
		Cell, 64: 635-647, 1991	
		Yamaguchi et al., XIAP, a cellular member of the inhibitor of apoptosis protein family, links the receptors to TAB1-TAK1 in the BMP signaling pathway.	
		EMBO J., 18(1): 179-187, 1999	
		Ying et al., Changing potency by spontaneous fusion.	
		Nature, 416: 545-548, 2002	
		Yu et al., Platelet-derived growth factor signaling and human cancer.	
		J. Biochem. Mol. Biol., 36(1): 49-59, 2003	
		Zhang et al., In vitro differentiation of transplantable neural precursors from human embryonic stem cells.	
		Nat. Biotechnol., 19: 1129-1133, 2001	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 25 of 25 Attorney Docket Number 5199-152

**Complete if Known**

Application Number 10/789,308

Filing Date 02/26/04

First Named Inventor Thomas M. Jessell

Art Unit 1636

Examiner Name to be assigned

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Zhou et al., The bHLH transcription factors OLIG2 and OLIG1 couple neuronal and glial subtype specification.	
		Cell, 109: 61-73, 2002	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.